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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/057,644

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Gal Ben-David

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7590

09/08/2004

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EXAMINER

PATEL, NITIN

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 09/08/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/057,644

**Applicant(s)**

BEN-DAVID, GAL

**Examiner**

Nitin Patel

**Art Unit**

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 19-39, 42-62 and 65-69 is/are rejected.
- 7) ☐ Claim(s) 17, 18, 40, 41, 63, 64 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1,7,10,15,16,24,30,39,47,50,53,56,61,62 is rejected under 35 U.S.C. 102(e) as being anticipated by DeForest (U.S. Patent No. 4,538,299).

As per claim 1,47,53 DeForest shows a transmission method for transmitting digital data from a transmitter (element 34 camera In Fig.1) to a receiver (element 30 In Fig.1 and In col.2 lines 36-40), the transmitter comprising a screen (In Col.2 lines 37-40) and the method comprising the steps of: displaying the digital data on the screen as a first representation (In col. lines 48-54) comprising at least one dither pattern, and deriving from the screen a second representation representative of the first representation (In col.2 lines 55-67 to lines 1-40 In col.3).

As per claim 7, DeForest shows a transmission method for transmitting digital data from a transmitter to a receiver (element 34 camera In Fig.1), the transmitter comprising a screen and the method comprising the steps of: displaying the digital data on the screen as a succession of at least one pattern defining a first representation (In col. lines 48-54), deriving from the screen a second representation representative of the

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first representation, and configuring the at least one pattern of the first representation to comprise at least one dither pattern(a gray scale pattern)(In col.2 lines 55-67 to lines 1-40 In col.3).

As per claims 10,15,16,39,50,56,61,62 DeForest shows at least one image from the first representation, and deriving the second representation from the at least one image (In Col.2 lines 48-50 and In Col.3 lines 3-15). And defining the screen as an entire display surface, and configuring the entire display surface for display of the at least one first representation (In Fig.3a) and defining the first representation to comprise more than one first representation, and configuring the entire display surface for simultaneous display of more than one first representation (in Fig.3b).

As per claims 24,30 DeForest shows transmitter comprising a processor (In col.3 lines 23-25) coupled to a memory storing a processor-readable program and a screen coupled to and driven by the processor for display of digital data originating from a data source, for transmission via the screen of the digital data to a receiver comprising a photo-sensor (element 36 digitizer capable of photo sensing an image), and the transmitter comprising (element 34 In fig.1): a first representation of the digital data configured for display on the screen(In col.2 lines 48-54), a second representation of the digital data being derived by the receiver from the screen(In col.3 lines3-15) , the second representation being representative of the first representation, and the first representation comprising at least one dither pattern(In col.3 lines 17-38).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2,8,25,31,48,54 is rejected under 35 U.S.C. 103(a) as being unpatentable over. DeForest(U.S. Patent No. 4,538,299).

As per claims 2,8,25,31,48,54 DeForest does not specifically teach screen selecting from the group of screens consisting of CRT screens, LCD screens, OLED screens, backlit screens and plasma screens. It would have been obvious tone of ordinary in the art, that using camera of DeForest using an LCD display screen would have obvious choice because it would have enhanced a picture quality to viewer.

5. Claims 3,4,11,13,14,26,27,33,34,36,37,38,49,57 is rejected under 35 U.S.C. 103(a) as being unpatentable over. DeForest(U.S. Patent No. 4,538,299) in view of Lippel (U.S. Patent No. 5,652,624).

As per claims 3,11,13,14,26,34,36,37,49,57 DeForest does not teach displaying the at least one dither pattern with a predetermined level of luminance selected from the group consisting of a distribution spanning the range from 0% to 100% of luminance level. Lippel shows the group consisting of a distribution spanning the range from 0% to 100% of luminance level (In Fig.2). It would have been obvious tone of ordinary skill in the art, at the time of the invention was made to combined the teaching of Lippel's into

device of DeForest's because it would have provided different level of gray scale representation on the display screen.

As per claim 4,27,33,38 DeForest shows configuring the first representation to comprise a predetermined level of luminance (In col.2 lines 60-67 a preset threshold value added into first image signal), deriving the second representation from the first representation, the second representation being in linear proportion to the predetermined level of luminance of the first representation (In col.3 lines 25-40).

6. Claims 5,6,9,12,19-23,28,29,32,35,42-46,51,52,55,58,59,60,65-69 is rejected under 35 U.S.C. 103(a) as being unpatentable over. DeForest (U.S. Patent No. 4,538,299) in view of Lippel (U.S. Patent No. 4,460,924).

As per claims 5,6,28,29,51,52,58,59,60 DeForest does not specifically teach each one of the at least one dither pattern to represent at least one bit of data and two bits of data. Lippel shows each one of the at least one dither pattern to represent at least one bit of data and two bits of data (In col.6 lines 25-50). It would have been obvious to one of ordinary skill in the art, at the time of the invention was made to combined the teaching of Lippel's into display device of Deforest because it would have combat effects of noise and distortion in a color image signal.

As per claims 9,32,55 DeForest does not teach integrating a low-pass-filter in the receiver for removal of high frequency scanning effects, and enabling the receiver for reception of digital data from a screen selected from the group of screens. Lippel shows integrating a low-pass-filter in the receiver for removal of high frequency scanning effects, and enabling the receiver for reception of digital data from a screen

selected from the group of screens (In fig.1 elements 12,13 and In col.3 lines 28-32). It would have been obvious to one of ordinary skill in the art, at the time of the invention was made to allow the teaching of Lippel's into display device of DeForest because it would have provided synchronize signals for both vertical and horizontal direction using bandwidth.

As per claim 12,35,58 DeForest does not teach configuring each at least one dither pattern to comprise a combination of M dither patterns, where M is at least 2, carrying at least  $\log_{\text{sub } 2} M$  bits of data in each the at least one dither pattern, and displaying each the at least one dither pattern with a predetermined mutually different level of luminance selected from the group consisting of a distribution spanning the range from 0% to 100% of luminance level. It is well known in that art, that logarithm formula based on  $\log_{\text{sub } N}$  and N could be any number of digits to put values in for getting result.

As per claims 19-23,42-46,65-69 DeForest shows configuration static transmitter (capable of cameras elements 34) and receiver to be portable (microscope element 30 in apparatus 10) which shows feedback signal emission mechanism for operation of the transmitter in association with the receiver (In Fig.1).

***Allowable Subject Matter***

7. Claim 17, 18,40,41,63,64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to teach or suggest the steps of: defining a first portion of the

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screen to comprise a window and defining a second portion of the screen to comprise an area, configuring the window for display of the at least one first representation, configuring the area for display of one presentation, and configuring the screen for simultaneously display of the at least one first representation in the window and of the one presentation in the area as claimed in claim 17.

The prior art fails to teach or suggest defining a first portion of the screen to comprise a predetermined number of windows, and defining a second portion of the screen to comprise a preset number of areas, defining a number of first representations to equal the predetermined number of windows, and defining a number of presentations to equal the preset number of areas, configuring each one of the predetermined number of windows for simultaneous display of, respectively, one of the number of first representations and configuring each one of the preset number of areas for simultaneous display of, respectively, one of the number of presentations, and displaying simultaneously the number of first representations in the first portion of the screen, and displaying simultaneously the number of presentations in the second portion of the screen as claimed in claim 18.

The prior art fails to teach or suggest a first portion of the screen being defined to comprise a window and a second portion of the screen being defined to comprise an area, the window being defined for display of the first representation, the area being configured for display of one presentation, and the screen being configured for simultaneously display of the at least one representation in the window and of the one



presentation in the area as claimed in claim 40.

The prior art fails to teach or suggest a first portion of the screen being defined to comprise a predetermined number of windows, and a second portion of the screen being defined to comprise a preset number of areas, a number of first representations being set to equal the predetermined number of windows, and a number of presentations being set to equal the preset number of areas, each one of the predetermined number of windows being configured for simultaneous display of, respectively, one first representation, and each one of the preset number of areas being configured for simultaneous display, respectively, of one presentation, whereby display of the predetermined number of first representations is achieved in the first portion of the screen simultaneously with display of the preset number of presentations in the second portion of the screen as claimed in claim 41.

### ***Conclusion***

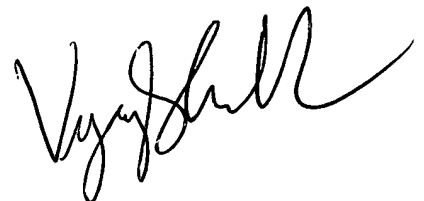
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin Patel whose telephone number is 703-308-7024. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin H Shalwala can be reached on 703-305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NP  
September 6, 2004



**VIJAY SHANKAR**  
**PRIMARY EXAMINER**